
FRBSF WEEKLY LETTER

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Banking Market Structure in the West

Over the past decade, consolidation has led to changes in the banking landscape. In the West, mergers such as those between Wells Fargo Bank and Crocker National Bank and between Bank of America and Security Pacific National Bank, as well as many less dramatic combinations, have changed names on bank branches from Alaska to Arizona. This *Weekly Letter* looks beyond these name changes to determine if consolidation has had a more fundamental impact on the structure of banking markets in the West. This is important because market structure has the potential to affect the cost of banking services.

Market structure

Two dimensions of market structure are the number of banks competing in a region and the degree to which market shares are concentrated in a few banks. Structure is important because, in theory at least, more banks and lower concentration can mean more competitive pricing of bank services.

Because many banking services are supplied locally, and many bank customers find it very costly to look for alternatives outside their local area, the antitrust analysis of bank mergers focuses mainly on the effects of the structure of local banking markets. The measure of structure used by the federal bank regulatory agencies and the Department of Justice (DOJ) is the Herfindahl-Hirschman Index (HHI). The HHI is computed as the sum of the squares of the percent market shares of bank deposits of the competitors in the local market. For example, if a market has only one firm, then the HHI is 100 squared, or 10,000, and it decreases as the number of competitors increases.

For evaluating individual mergers, the DOJ guidelines indicate that a bank merger that increases the HHI in a local market by 200 points

and results in an HHI of at least 1800 would raise competitive concerns. (In the competitive evaluation of bank mergers, the deposits of savings institutions are included with a weight of 50 percent in the calculation of the HHI.) While the guidelines are not hard and fast, their use has led to the denial of merger applications and, more often, to requirements that a merged bank divest banking offices to third parties to reduce the effects on market concentration. As a result, the guidelines have helped contain the adverse effects of individual mergers on competition.

Changes in structure

However, the DOJ guidelines do allow for small changes in the HHI, and it is possible for the distribution of shares in local banking markets to shift over time in such a way that, even with anti-trust laws, concentration increases. To see if this has happened in the West, I looked at changes in the structure of local banking markets in the Twelfth Federal Reserve District states of Alaska, Arizona, California, Hawaii, Idaho, Nevada, Oregon, Utah, and Washington between 1982 and 1992.

For purposes of this study, I delineated 243 local banking markets, comprised of 65 metropolitan markets and 178 nonmetropolitan (rural) markets. Metropolitan markets are defined by Rand McNally's "RaNally Metropolitan Areas," or RMAs. Rural markets are approximated as counties without any portion of an RMA in them; there are 178 in the Twelfth District. (These definitions mean that the non-RMA parts of counties that have a portion of an RMA in the county are excluded from the analysis.)

Statewide average HHIs were calculated by multiplying the HHI in each market (metropolitan and rural) by a market-specific weighting factor and adding up all of the weighted HHIs for the state.

WESTERN BANKING

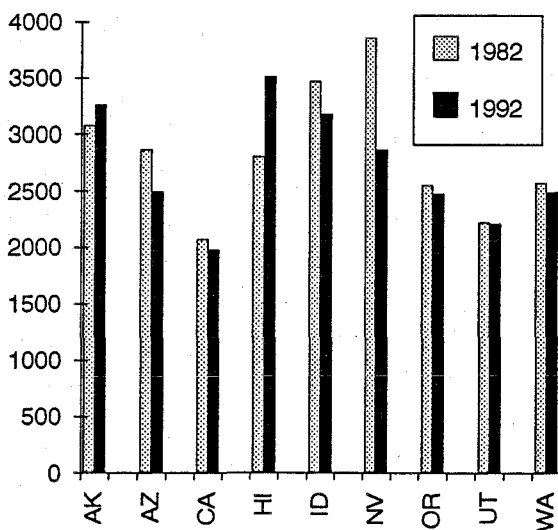
Western Banking is a quarterly review of banking developments in the Twelfth Federal Reserve District. It is published in the *Weekly Letter* on the fourth Friday of January, April, July, and October.

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The weighting factor for the statewide averages is the deposits in that market divided by the sum of all deposits in all local markets in the state. A similar scheme was used to calculate separate metropolitan and rural averages.

The figure shows that, in most states in the West, local market concentration has been fairly stable, or has even declined. The two most striking declines have been in Arizona and Nevada, where the HHIs declined by 370 points and 989 points, respectively. The two states showing increases in the HHI were Alaska and Hawaii. Alaska saw an HHI increase of 183, mostly because the largest bank's acquisitions of several of the mid-sized banks in the state were allowed due to consideration of the acquiree banks' financial conditions. Hawaii had an increase in the average HHI of 709, in part because the largest bank in the state acquired a fairly large savings and loan.

Average Concentration Indices (HHIs)



Thus, for most of the West, bank consolidation has occurred along with stable or decreasing local market concentration. For the most part, this also holds true when attention is confined to just metropolitan or just rural markets. Even California, with two of the biggest bank mergers in history, has had a net decline in weighted average HHIs.

A stable or declining average HHI in most of the western states reflects at least a couple of factors. One is the increase in the number of banks in some local banking markets, both through the establishment of new banks and the branching of existing banks. From 1982 to 1992, 67 local banking markets saw increases in the number of banks. For example, new entry played an important role in the decline in the HHI in both Arizona and Nevada. Another factor is the dynamics among existing competitors in local markets. A decline in concentration means that, over time, market shares tend to "even out," as banks with smaller market shares gain ground and banks with larger shares lose ground. This suggests that smaller banks may provide a competitive check on larger banks.

An additional aspect of the dynamic is a tendency for some acquiring banks to lose some of the combined market share of the merged firms following an acquisition. This mitigates against any initial concentrating effects of mergers. For some in-market mergers, acquiring banks have been required to divest branches in specific markets, often to banks not already operating in those markets. Sometimes, competitors have been able to attract customers from merged institutions because they closed branches or otherwise changed bank practices. This has happened in some interstate as well as intrastate acquisitions. Following some of the larger mergers in particular, competitors have even mounted aggressive promotional campaigns aimed at attracting the customers of merged or acquired institutions.

Conclusion

Despite widespread consolidation in banking between 1982 and 1992, local banking markets in the West have generally witnessed either relatively stable or declining levels of concentration. This has been due to several factors, including the establishment of new banks and branches and the tendency of smaller competitors in local markets to gain market share, thereby providing a competitive check on larger institutions.

Elizabeth Laderman
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REGIONAL BANK DATA
SEPTEMBER 30, 1993
(NOT SEASONALLY ADJUSTED, PRELIMINARY DATA)

		DISTRICT	ALASKA	ARIZ	CALIF.	HAWAII	IDAHO	NEVADA	OREGON	UTAH	WASH.
ASSETS AND LIABILITIES -- \$ MILLION (ALL COMMERCIAL BANKS)											
ASSETS	TOTAL	500,369	4,998	35,631	328,137	22,121	10,612	16,913	26,228	14,871	40,859
	FOREIGN	32,159	1	0	30,122	2,001	0	0	2	20	13
	DOMESTIC	468,210	4,997	35,631	298,015	20,120	10,612	16,913	26,226	14,851	40,845
LOANS	TOTAL	328,769	2,650	20,294	217,286	13,926	7,544	9,680	18,089	8,823	30,477
	FOREIGN	28,319	5	0	26,907	1,391	0	0	4	0	11
	DOMESTIC	300,450	2,645	20,294	190,379	12,535	7,544	9,680	18,084	8,823	30,466
	REAL ESTATE	158,655	1,311	7,871	112,194	7,511	2,438	2,394	7,616	3,958	13,362
	COMMERCIAL	60,335	790	2,471	37,742	3,079	1,474	773	4,608	1,609	7,790
	CONSUMER	54,242	385	6,726	24,054	1,071	2,313	6,231	3,829	2,591	7,043
	AGRICULTURAL	5,981	4	343	2,978	37	889	15	436	154	1,125
	OTHER	21,238	155	2,882	13,412	836	431	267	1,596	512	1,146
SECURITIES	TOTAL	80,978	1,843	10,053	45,690	5,148	1,811	4,366	4,363	3,469	4,234
	U.S. TREASURIES	25,262	894	2,393	13,563	2,721	426	1,641	1,455	713	1,456
	U.S. AGENCIES	41,807	512	6,151	25,311	1,911	729	2,247	2,073	1,652	1,222
	OTHER SEC.	13,909	437	1,509	6,816	517	656	478	836	1,104	1,556
LIABILITIES	TOTAL	456,462	4,343	32,385	300,301	20,387	9,811	14,792	23,866	13,570	37,006
	DOMESTIC	424,302	4,342	32,385	270,179	18,368	9,811	14,792	23,865	13,550	36,993
DEPOSITS	TOTAL	397,550	3,743	29,076	266,827	14,152	7,949	9,952	20,815	11,024	34,012
	FOREIGN	28,008	1	0	26,127	1,738	0	0	2	64	76
	DOMESTIC	369,542	3,742	29,076	240,700	12,414	7,949	9,952	20,813	10,959	33,936
	DEMAND	96,386	1,167	6,358	66,473	2,427	1,528	2,794	4,568	2,518	8,553
	NOW	41,241	361	3,334	24,180	1,453	1,052	1,362	3,342	1,548	4,608
	MMDA & SAVINGS	140,608	1,269	10,914	93,789	5,043	2,716	4,037	6,839	3,682	12,319
	SMALL TIME	63,279	435	7,067	36,402	2,008	2,090	970	5,200	2,465	6,621
	LARGE TIME	27,703	472	1,402	19,657	1,481	563	766	848	721	1,772
	OTHER	326	38	0	199	3	0	2	16	5	62
	OTHER BORROWINGS	33,502	560	2,394	13,411	5,405	1,705	3,446	2,331	2,107	2,144
EQUITY CAPITAL		43,907	855	3,246	27,835	1,735	800	2,121	2,361	1,301	3,853
LOAN LOSS RESERVE		9,923	43	507	7,296	225	114	487	433	204	614
LOAN COMMITMENTS		202,923	617	30,128	108,255	8,052	3,047	15,129	12,681	6,937	18,077
LOANS SOLD		23,111	18	194	22,182	61	22	98	205	79	254
TIER1 CAPITAL RATIO		0.099	0.211	0.123	0.092	0.105	0.096	0.149	0.104	0.130	0.093
TOTAL CAPITAL RATIO		0.128	0.223	0.146	0.126	0.125	0.115	0.162	0.121	0.147	0.118
LEVERAGE RATIO		0.079	0.127	0.081	0.076	0.073	0.073	0.112	0.083	0.086	0.084
EARNINGS AND RETURNS -- \$ MILLION (ALL COMMERCIAL BANKS)											
INCOME	TOTAL	11,104	112	646	7,074	432	228	668	653	340	951
	INTEREST	8,280	89	509	5,289	365	191	387	452	265	734
	FEES & CHARGES	756	6	49	508	15	16	16	49	23	75
EXPENSES	TOTAL	8,698	76	478	5,784	333	171	456	461	257	684
	INTEREST	2,578	25	169	1,647	140	68	88	130	93	217
	SALARIES	2,315	26	134	1,588	87	32	51	153	57	187
	LOAN LOSS PROVISION	730	1	13	578	27	10	71	1	7	22
	OTHER	3,075	24	162	1,971	78	60	246	177	99	258
TAXES		928	12	71	517	41	20	70	77	29	92
NET INCOME		1,453	24	75	769	59	37	143	115	55	178
ROA (% ANNUALIZED)		1.18	1.92	0.87	0.95	1.06	1.42	3.51	1.78	1.48	1.75
ROE (% ANNUALIZED)		13.24	14.86	8.19	11.04	13.62	18.72	26.99	19.56	16.78	18.28
NET INTEREST MARGIN (% ANNUALIZED)		4.64	5.07	3.98	4.52	4.04	4.63	7.33	4.96	4.67	5.13
ASSET QUALITY -- PERCENT OF LOANS (LARGE COMMERCIAL BANKS)											
LOAN LOSS RESERVE		3.11	1.55	2.49	3.47	1.61	1.49	5.20	2.49	2.28	2.11
NET CHARGE-OFFS, TOTAL		0.98	0.08	0.58	1.13	1.18	0.34	2.87	0.35	-0.04	0.29
REAL ESTATE		0.95	0.01	0.21	1.30	0.10	0.07	0.16	0.08	-0.03	0.08
COMMERCIAL		0.53	-0.08	-0.54	0.52	3.87	1.10	-5.06	0.28	-0.58	0.13
CONSUMER		2.65	0.65	1.66	3.60	0.87	0.25	4.77	1.12	0.58	1.01
AGRICULTURAL		-0.35	0.00	-0.44	-0.36	0.35	-0.02	0.03	0.55	-0.40	-0.90
PAST DUE & NON-ACCRUAL, TOTAL		4.44	2.58	2.79	5.36	2.60	1.36	6.16	1.86	1.59	2.52
REAL ESTATE		6.02	2.60	3.18	7.30	2.65	1.60	6.78	2.36	1.72	3.27
CONSTRUCTION		19.24	2.73	5.65	24.55	8.60	5.64	25.32	8.22	0.97	11.57
COMMERCIAL		8.10	4.07	8.07	10.13	1.61	1.83	7.22	3.41	3.64	2.65
FARM		8.87	0.00	24.33	9.14	10.46	3.50	0.00	6.21	15.28	3.80
HOME EQUITY LINES		1.30	1.01	0.60	1.43	1.21	0.26	0.76	0.37	0.59	1.80
MORTGAGES		3.48	1.82	1.80	4.19	2.88	1.11	3.92	1.16	1.05	1.33
MULTI-FAMILY		7.46	1.73	1.12	10.07	1.16	0.00	2.13	0.45	0.04	1.51
COMMERCIAL		3.97	2.60	4.87	4.55	2.86	1.34	8.54	1.23	1.79	2.58
CONSUMER		2.89	2.68	2.71	3.11	2.63	1.22	5.89	1.23	1.30	1.44
AGRICULTURAL		2.90	0.00	2.43	3.06	20.66	1.32	1.20	4.87	1.61	2.62
NUMBER OF BANKS		715	8	37	429	17	20	20	46	50	88
NUMBER OF EMPLOYEES		242,975	2,733	19,557	155,547	8,707	4,727	6,508	16,465	7,644	21,087

* Past Due and Non-Accrual loan figures are revised and are not consistent with previous values.

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MARKET SHARE STATISTICS

DEPOSITORY INSTITUTIONS REQUIRED TO HOLD RESERVES WITH THE FEDERAL RESERVE ON A WEEKLY BASIS

PERCENT OF COMBINED MARKET TOTAL FOR NOVEMBER 1993, BY REGION

DEPOSIT TYPE	DISTRICT			ALASKA			ARIZONA			CALIF			HAWAII			IDAHO			NEVADA			OREGON			UTAH			WASH		
	CB	SL	CU	CB	SL	CU	CB	SL	CU	CB	SL	CU	CB	SL	CU	CB	SL	CU	CB	SL	CU	CB	SL	CU	CB	SL	CU	CB	SL	CU
TOTAL DEPOSITS	55	38	7	72	3	25	91	1	8	49	45	6	64	28	8	91	5	4	78	18	5	80	10	9	79	5	15	57	33	10
DEMAND	90	7	4	98	0	2	97	0	3	89	7	4	91	4	5	96	0	4	98	2	0	95	2	3	89	6	5	85	13	2
NOW	64	28	8	60	5	35	88	0	12	58	35	7	65	31	4	89	4	7	78	14	8	83	8	9	83	2	16	66	22	12
SAVINGS & MMDAS	61	30	10	56	4	40	89	0	11	57	35	8	56	33	11	91	4	6	77	15	8	76	10	14	73	3	24	56	26	18
SMALL TIME	31	65	4	75	7	17	94	1	5	22	74	4	53	44	3	87	11	2	47	48	4	75	18	7	80	11	8	39	56	5
LARGE TIME	43	47	11	95	1	3	91	1	8	35	53	12	75	17	8	89	6	5	87	13	0	75	13	12	68	11	21	44	54	2

CB = COMMERCIAL BANKS; SL = SAVINGS & LOANS AND SAVING BANKS; CU = CREDIT UNIONS; MAY NOT SUM TO 100% DUE TO ROUNDING

INTEREST RATES ON DEPOSITS AND LOANS

TYPE OF RETAIL DEPOSIT ACCOUNT OR LOAN		NOV 1991	FEB 1992	MAY 1992	AUG 1992	NOV 1992	FEB 1993	MAY 1993	AUG 1993	NOV 1993
SAVINGS ACCOUNTS AND MMDAS	U.S.	4.64	3.78	3.57	3.14	2.90	2.80	2.65	2.55	2.48
	DISTRICT	4.68	3.81	3.67	3.29	3.05	2.96	2.78	2.67	2.58
92 TO 182 DAYS CERTIFICATES	U.S.	4.89	4.00	3.82	3.36	3.14	3.08	2.98	2.96	2.92
	DISTRICT	4.76	3.85	3.76	3.34	3.14	3.01	2.88	2.85	2.81
2-1/2 YEARS AND OVER CERTIFICATES	U.S.	6.02	5.36	5.45	4.87	4.70	4.59	4.45	4.40	4.28
	DISTRICT	5.71	5.03	5.17	4.75	4.49	4.41	4.27	4.19	4.09
COMMERCIAL SHORT TERM FIXED*	U.S.	6.09	5.18	4.87	4.42	4.17	4.16	3.91	4.02	3.95
	DISTRICT	7.01	6.50	6.26	4.86	5.35	5.21	4.84	4.78	5.53
COMMERCIAL SHORT TERM FLOATING*	U.S.	7.83	6.47	6.56	5.95	5.91	5.85	5.58	5.53	5.56
	DISTRICT	9.08	7.66	7.34	6.37	7.23	8.26	8.09	8.54	8.02
COMMERCIAL LONG TERM FIXED*	U.S.	7.82	6.33	7.27	6.28	5.97	6.43	6.02	6.21	5.38
	DISTRICT	10.10	7.70	8.68	8.28	6.44	9.19	10.86	8.05	6.62
COMMERCIAL LONG TERM FLOATING*	U.S.	8.14	6.95	7.06	6.60	6.53	6.38	6.47	6.05	5.70
	DISTRICT	8.89	8.10	7.38	7.63	8.11	8.43	8.55	8.77	7.68
CONSUMER, AUTOMOBILE	U.S.	10.61	9.89	9.52	9.15	8.60	8.57	8.17	7.98	7.63
	DISTRICT	10.80	9.90	9.67	9.39	8.76	8.98	8.23	8.09	7.70
CONSUMER, PERSONAL	U.S.	14.88	14.39	14.28	13.94	13.55	13.57	12.00	13.45	13.22
	DISTRICT	13.59	13.64	13.80	13.68	12.83	12.67	13.87	12.69	13.00
CONSUMER, CREDIT CARD	U.S.	18.19	18.09	17.97	17.66	17.38	17.26	17.15	16.59	16.30
	DISTRICT	18.41	18.51	18.52	18.46	18.29	17.76	17.60	17.58	17.00

SOURCES: MONTHLY SURVEY OF SELECTED DEPOSITS, SURVEY OF TERMS OF BANK LENDING, AND TERMS OF CONSUMER CREDIT

MOST COMMON INTEREST RATES ON RETAIL DEPOSITS, WEIGHTED AVERAGE INTEREST RATE ON LOANS

* DATA ARE COMPOUNDED ANNUAL RATES